

REMARKS

The enclosed is responsive to the Examiner's Office Action mailed on April 4, 2008. A Request for Continued Examination accompanies this Amendment. At the time of the Office Action, claims 1-17 were pending. By way of the present response, applicants have: 1) amended claims 1, 5, 9, and 13; 2) added no claims; and 3) canceled no claims. As such, claims 1-17 are now pending. Reconsideration of this application as amended is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

The Examiner rejected claims 1-17 under 35 U.S.C. § 102(a) as being anticipated by the admitted prior art in the background of the application (hereinafter "Background").

Applicants respectfully submit that the Background does not disclose all of the limitations of amended claim 1, which reads:

A machine-implemented method for upgrading the schema of a database, comprising:

updating a database update message from a first version to an upgraded version by chaining through one or more intermediate upgraded versions, wherein updating comprises

receiving an update message having a first version format, and

repeatedly generating a revised update message having a next most recent version format based on the update message until a final update message having the upgraded version format is generated; and

applying the revised update message to the database to write an upgraded version of the schema of the database.

(Amended claim 1, emphasis added).

Applicants do not dispute the Office Action's assertion that the Background discloses that "[d]atabase software will generally support upgrading from any of several previous versions." (Background of the present application, page 1, lines 18-20). However, applicants are not claiming a method and apparatus for simply upgrading a database from any of several previous versions. Applicants claim upgrading a database by release chaining. The Background does not disclose updating "by chaining through intermediate versions," nor does it disclose "repeatedly generating a revised update message having a next most recent version format based on the update message until a final update message having an upgraded version format is generated." In contrast, the Background states that:

In existing systems, each new software release provides **separate modules for each prior release** from which an upgrade is possible. Upgrade code must be developed to map each of these three old releases into the current release, **with all of the upgrade code for each new version written anew in each release** (using older release code as a model). Thus, if the latest database software is at release 4, and assuming that releases have been numbered only at full numeral versions (e.g., release 1, release 2, and release 3), then **the upgrade code for release 4 must contain code to convert the databases to release 4 directly from release 1, release 2, or release 3**.

The current upgrade system requires the duplication of code for mapping and writing databases for each prior supported version. This also increases complexity in code as analysis must be done between any prior release and the newest release to understand how different versions must be changed to arrive at the latest release. For example, **developing the release 2 to release 4 upgrade code using the current approach involves understanding the changes from release 2 to release 3, and release 3 to release 4, and combining them into a single module**. In addition, the complexity of mapping an update message into the database itself must also be included in each set of upgrade code.

(Background of present application, page 2, line 14 – page 3, line 14).

The Background discloses a method of updating directly from the existing version to the upgraded version without chaining through intermediate versions and repeatedly

generating a revised update message having a next most recent version format based on the update message until a final update message having an upgraded version format is generated.

If the Office Action is asserting that the Background discloses upgrading directly from one version to the next (e.g., from release 1 to release 2) and then one could repeat that process (e.g., from release 2 to release 3), the Background still fails to disclose the limitations of claim 1. Claim 1 discloses repeatedly generating a revised update message by chaining update messages and then applying the revised update message to the database, not applying each update message separately to the database.

Given that claims 2-4 are dependent claims with respect to claim 1, either directly or indirectly, and add additional limitations, applicants submit that claims 2-4 are not anticipated by the Background under 35 U.S.C. § 102(a).

Given that claims 5-8, 9-12, and 13-17 were rejected based upon the same art and rationale as claims 1-4 and claims 5-8, 9-12, and 13-17 have similar limitations as claims 1-4 that are not disclosed in the Background, applicants submit that claims 5-8, 9-12, and 13-17 are not anticipated by the Background under 35 U.S.C. § 102(a) for the same reasons as discussed above.

Applicants, accordingly, respectfully submit that the rejection of claims 1-17 under 35 U.S.C. § 102(a) as being anticipated by the Background has been overcome.

The Examiner also rejected claims 1-17 under 35 U.S.C. § 102(a) as being anticipated by Hug, et al., U.S. Patent No. 5,806,078 (hereinafter "Hug").

In reference to claim 1, the Examiner stated that:

Hug discloses "a method for upgrading a database" [see col. 79, lines 5-23], comprising:

"updating a message from a first version to an upgraded version by chaining through intermediate versions" [i.e., version data file 40 and the difference data file 42 to reflect the changes in the subsequent version; col. 5 lines 38-41],

"wherein updating comprises: receiving an update message having a first version format" [i.e., regenerating version (20); see col. 5, lines 38-46]; "and repeatedly [i.e., iteratively repeat; see col. 5, lines 58-60] generating a revised update message having a next most recent version format based on the update message until a final update message having an upgraded version format is generated" [see col. 5, lines 48-56].

(Office action dated April 4, 2008 page 6).

It is respectfully submitted that Hug does not disclose all of the limitations of amended claim 1. Hug discloses a "version management system for storing and retrieving changes to spreadsheet and word processor documents" which permits "a user to access a plurality of versions" of those documents. (Hug, Abstract). "An original version of each document and all alternative versions are stored in a delta format, i.e., storing only the differences from a prior document version, in a common difference data file and version data file." (Hug, Abstract). "The difference data file 42 contains sets of data records reflecting the delta-formatted differences from each prior version of a document, e.g., the changed data and the cell location in a spreadsheet." (Hug, col. 6, lines 7-11). "[T]he version data file 40 contains a set of pointers 54 for each stored document version that point to a set of data records in the difference file 42 that are used to regenerate each document version." (Hug, col. 6, lines 22-27).

Hug does not disclose a "upgrading the schema of a database." In contrast, Hug compares the differences between data edits made by a user to a document and stores those differences in a set of files. The Examiner made reference to Hug, col. 79, lines

5-23 (Office action dated September 21, 2007 page 4). Applicants respectfully direct the Office's attention to the fact that Hug does not contain a column 79. Applicants assume that the Office Action was referring to Nakagawa, a reference of a previous rejection, as rejections are often modeled after previous rejections (see Office action dated September 21, 2007 page 2). The basis for the Examiner's rejection was 35 U.S.C. § 102(a), not 35 U.S.C. § 103. There was no discussion of a combination of the two patents and no articulation of a motivation to combine the two patents.

Nonetheless, even if the Examiner had based the rejection upon 35 U.S.C. §103, applicants respectfully assert that one of ordinary skill in the art would not be motivated to combine the references and, even if combined, the combination would still lack the limitations of amended claim 1. Nakagawa discloses a client program to detect software updates, download them from a server, and update the software "according to the update instruction information when it is received." (Nakagawa, Abstract). Nakagawa does not disclose a "upgrading the schema of a database."

Furthermore, Hug does not disclose "updating a message from a first version to an upgraded version by chaining through intermediate versions ... receiving an update message having a first version format; and repeatedly generating a revised update message." In contrast, the contents of the version control files in Hug are the data edited by a user and pointers to the locations in the document of the data edited by a user. Hug applies each individual delta version of the data to the original in succession until reaching the desired version. Hug does not disclose generating a revised update message by release chaining and then applying the revised update message to a database.

Given that claims 2-4 are dependent claims with respect to claim 1, either directly or indirectly, and add additional limitations, applicants submit that claims 2-4 are not anticipated by the Hug under 35 U.S.C. § 102(a).

Given that claims 5-8, 9-12, and 13-17 were rejected based upon the same art and rationale as claims 1-4 and claims 5-8, 9-12, and 13-17 have similar limitations as claims 1-4 that are not disclosed in the Hug, applicants submit that claims 5-8, 9-12, and 13-17 are not anticipated by the Hug under 35 U.S.C. § 102(a) for the same reasons as discussed above.

Applicants, accordingly, respectfully submit that the rejection of claims 1-17 under 35 U.S.C. § 102(a) as being anticipated by the Hug has been overcome.

CONCLUSION

Applicants respectfully submit that in view of the amendments and arguments set forth herein, the applicable rejections have been overcome. Applicants reserve all rights under the doctrine of equivalence.

Pursuant to 37 C.F.R. 1.136(a)(3), applicants hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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